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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/784,419 | 02/23/2004 | Satoshi Machida | S004-5227 | 2570 |

7590

09/21/2005

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EXAMINER

PYO, KEVIN K

ART UNIT

PAPER NUMBER

2878

DATE MAILED: 09/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/784,419

Applicant(s)

MACHIDA ET AL.

Examiner

Kevin Pyo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 9-18, 20 and 21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 19 is/are rejected.
- 7) ☒ Claim(s) 5-8 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

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1. Applicant's election of Species I (claims 1-8 and 19) in the reply filed on 8/26/2005 is acknowledged. The non-elected claims (9-18, 20 and 21) should be canceled in order to expedite the prosecution.

Specification

2. The disclosure is objected to because of the following informalities:

On page 14, lines 19 and 20, it appears that "capacitor 23" should be changed to --capacitor 5--, respectively.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-4 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Machida (US 2002/0166949 A1).

Regarding claim 1, Machida shows in Fig.1 the following elements of applicant's invention: a) photoelectric conversion circuit (1) for generating an optical signal in corresponding to incident light; b) reset circuit (2) connected to an output terminal of the photoelectric conversion circuit; c) amplification circuit (3) connected to output terminals of the photoelectric conversion circuit and the reset circuit; d) hold circuit (5) connected to an output

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terminal of the amplification circuit; and e) signal reading means (6) for reading out a signal from the hold circuit, wherein the hold circuit holds a reference signal generated through resetting of the photoelectric conversion circuit by the reset circuit (paragraphs 28 and 29).

Regarding claims 2, 3 and 19, Machida shows in Fig.1 the following elements of applicant's invention: a) photoelectric conversion circuit (1) for generating an optical signal in corresponding to incident light; b) reset circuit (2) connected to an output terminal of the photoelectric conversion circuit; c) amplification circuit (3) connected to output terminals of the photoelectric conversion circuit and the reset circuit; d) electric charge transfer means (4) having a terminal connected to an output terminal of the amplification circuit; e) a capacitor (5) connected to the other terminal of the electric charge transfer means; f) a source follower amplifier (6) having a gate connected to the electric charge transfer means and the capacitor; g) channel selection circuit (7) connected to a source of the source follower amplifier; and h) a common signal line (11) to which an output terminal of the channel selection circuit is connected, wherein the capacitor (5) holds a reference signal generated through resetting of the photoelectric conversion circuit by the reset circuit, and when the channel selection circuit is turned ON, the reference signal is read out from the capacitor to the common signal line, and then the electric charger transfer means is turned ON to read out the optical signal to the common signal line (paragraphs 29 and 30).

Regarding 4, the limitation therein is disclosed in paragraph 30.

Allowable Subject Matter

5. Claims 5-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter:

The prior art (i.e. Machida) does not disclose or make obvious a photoelectric converter comprising, in addition to the other recited features of the claim, an additional current source connected to a source follower amplifier in a manner recited in claim 5.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Pyo whose telephone number is (571) 272-2445. The examiner can normally be reached on Mon-Fri (with flexible hour), First Mon. off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David P. Porta can be reached on (571) 272-2444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Kevin Pyo', written in a cursive style.

Kevin Pyo
Primary Examiner
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Pkk
9/12/05